



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,503	03/15/2004	Guido Gabriele Albasini	2110-111-03	1822

7590 04/15/2010  
GRAYBEAL JACKSON HALEY LLP  
Suite. 350  
155-108th Avenue N.E.  
Bellevue, WA 98004-5973

EXAMINER
----------

TRAN, KHANH C

ART UNIT	PAPER NUMBER
----------	--------------

2611

MAIL DATE	DELIVERY MODE
-----------	---------------

04/15/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/801,503	<b>Applicant(s)</b> ALBASINI ET AL.	
	<b>Examiner</b> KHANH C. TRAN	<b>Art Unit</b> 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 25-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10, 26-28, 32 and 33 is/are allowed.
- 6) ☒ Claim(s) 25, 29-31, 34 and 35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 May 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. The Amendment filed 1/14/2010 has been entered. Claims 1-10 and 25-35 are still pending in this Office action.

### *Response to Arguments*

2. Applicant's arguments, see Applicants' Re, filed 1/14/2010, with respect to the rejection(s) of claim(s) 25, 29-31 and 34-35 under 35 U.S.C. 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Dent U.S. Patent 5,834,987 (previously cited).

### *Claim Objections*

3. Claims 25, 31 and 35 are objected to because of the following informalities:  
***the claimed subject matter "digital conditioning signal" is an analog signal (i.e. conditioning current  $I_c$  in paragraph [0021] and in FIG. 1a) as disclosed in the original disclosure.*** Applicants are requested to clarify the recited claimed subject matter. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 25, 29-31 and 34-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Dent U.S. Patent 5,834,987 (previously cited).

Regarding claim 25, Dent FIG. 2 prior art discloses a phase-locked loop, comprising:

a phase-frequency detector operable to generate a phase-error signal based on a comparison of a reference signal and a feedback signal (phase detector 12, corresponding to the phase-frequency detector claimed, generating phase error based on a comparison of a divided down reference frequency, corresponding to reference signal claimed, and a feedback signal, corresponding to feedback signal claimed; see column 1 line 57 via column 2 line 5 and FIG. 2);

a control circuit coupled to the phase-frequency detector and operable to generate a digital conditioning signal based on a modulation value and the feedback signal (fractional-N accumulator 22, corresponding to control circuit claimed, coupled to phase detector 12 and operable to generate fraction bits, corresponding to digital conditional signal claimed, based on increment input dN, corresponding to modulation value claimed, and the feedback signal (see column 2 lines 43-50, column 3 lines 45-55 and FIG. 2); and

Art Unit: 2611

a generator coupled to the control circuit and the phase-frequency detector and operable to receive a control signal to generate an output signal, the control signal based on a summation of the phase-error signal and conditioning signal (VCO 14, corresponding to the generator claimed, coupled to fractional-N accumulator 22, corresponding to control circuit claimed, and phase detector 12, corresponding to the phase-frequency detector claimed, to receive output of subtractor 20 (output of subtractor 20 corresponding to the control signal claimed) based on phase error and fractional bits outputted from fractional-N accumulator 22; see column 3 lines 19-30, lines 55-65 and FIG. 2).

Regarding claim 29, Dent FIG. 2 prior art further discloses a filter coupled to the generator and operable to filter the control signal before the control signal is received by the generator (loop filter 13, corresponding to the filter claimed, coupled to VCO 14 and operable to filter output of subtractor 20 (output of subtractor 20 corresponding to the control signal claimed); see FIG. 2).

Regarding claim 30, Dent FIG. 2 prior art further discloses a multi-modulus frequency divider coupled to the phase-frequency detector and operable to modify the feedback signal based on the modulation value (programmable divider 25, corresponding to multi-modulus frequency divider claimed, coupled to the phase detector 12 and operable to modify feedback signal based on increment input dN, corresponding to modulation value claimed; see column 1 line 57 via column 2 line 7, and also FIG. 2).

Regarding claim 31, claim is rejected on the same ground as for claim 25 because of similar scope.

Regarding claim 31, claim is rejected on the same ground as for claim 25 because of similar scope.

Regarding claim 34, claim is rejected on the same ground as for claim 29 because of similar scope.

Regarding claim 35, claim is rejected on the same ground as for claim 25 because of similar scope.

***Allowable Subject Matter***

5. Claims 1-10, 26-28 and 32-33 are allowed.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 2611

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHANH C. TRAN whose telephone number is (571)272-3007. The examiner can normally be reached on Monday - Friday from 08:00 AM - 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KCT

***/KHANH C. TRAN/  
Primary Examiner, Art Unit 2611***